

Observations on weekly explosive gas monitoring results at Valley Asphalt

Quonset Hut Building (Table 1)

1. The explosive gas concentrations have increased by a factor of 3 since January, from 5-7 % to 21-25 % in July. As speculated in the VI WP, this is likely due to higher methane production in warmer weather. It would be advisable to have CRA perform the monitoring during “the heat of the day” for the remaining summer/fall weekly monitoring events and for CRA would document the weather conditions (temperature, recent storms and precipitation, etc.).
2. CRA should go back and add “without filter” or “with filter” information to the January and Feb 7, 2012 data sets to be consistent with the current procedure.
3. On April 26th, methane was detected in the office subslab probe at 10% of the LEL which is equal to the Soil Vapor Screening Level (SVSL) for rapid response, but the LEL reading from the probe without the filter was non-detect. This appears to have also happened (lower reading without the filter) at the other probe. These readings appear to be backwards, or indicate an issue with the sampling or data quality. If these readings are even partially accurate, it is significant because it would be the first time that explosive gas was detected in the office probe.
4. Methane and LEL were measured in the office probe May 24, but less than the SVSL of 10% of the LEL. Since then readings have not been detected in the office probe. This indicates changing readings over time, and the need to continue monitoring.
5. The readings from the office probe on July 19, 2012 are footnoted as “*anomalous value, suspected instrument carry-over or transcription error.*” To prevent this issue, CRA should confirm that they are measuring the indoor air first, and then the office probe prior to measuring the warehouse probe (where the elevated explosive gas levels are found). In addition, if anomalous values are observed in the field they should be rescreened right away, after recalibrating the instrument if necessary.
6. It is not clearly indicated if CRA is measuring indoor air with or without the carbon filter on the meter. This should be specified on the table.
7. On July 19, the measurement in the office indoor air was 0.1 / 1% LEL that is equal to the Indoor Air Screening Level (IASL) for rapid response. This reading is unspecified as explosive gas or methane, and the table needs to indicate if the reading was with or without the filter. Additionally, CRA should clearly identify exceedances of the VI WP screening levels on the table.

Observations on weekly explosive gas monitoring results at SIM Trainer (Table 2)

1. It would be advisable that CRA monitor all of the subslab probes in this building, just as they are monitoring all probes at the Valley Asphalt Quonset Hut.
2. There are several dates where the unfiltered reading was lower than the filtered reading. As discussed above, this appears to be backwards, or indicates an issue with the sampling or data quality. It would be advisable that CRA re-measure when this happens.